

REMARKS

This response is offered in reply to the Office Action of February 28, 2006.

Claim 1 has been amended to place it in better form and conform with the claim language of claims 2 and 3. The specification at page 3, last paragraph supports the amendment to claim 1.

On page 2 of the office action, claims 1-6 are rejected under 35 USC 103(a) as obvious in view of the US patent 5,658,614.

Applicants believe the pending claims distinguish over the cited '614 patent. For example, the examiner acknowledges that the '614 patent does not teach the flow rate and volume percentage recited in Applicants' pending claims.

The examiner argues that Basta's ranges set forth motivation that flow rates and volume % are varied in a CVD process.

Applicants disagree and believe that Basta provides no such motivation to vary coating parameter(s) as set forth in pending claim 1 and in fact teaches away from the pending claims in disclosing an aluminum trichloride concentration of 9 volume % of the coating gas mixture. This teaching of Basta clearly leads away from providing a concentration of aluminum trichloride in the chamber of less than about 1.4% by volume of the coating gas mixture in the chamber together with providing a total pressure of the coating gas mixture in the chamber of about 100 to about 450 Torr as set forth in pending claim 1.

Moreover, Basta does not teach the total pressure of the coating mixture in the chamber set forth in Applicants' pending claims. The coating conditions of the '614 patent typically involved a total pressure of the coating mixture in the chamber of 500 Torr, which is beyond the total pressure of Applicants' pending claims.

Applicants fail to see how the cited Basta '614 patent can provide motivation to achieve Applicants' pending claims 1-6 given the above discussion of the lack of and contrary teachings of Basta.

The examiner also argues that Applicants have not provided any evidence of criticality of the claimed ranges. Applicants adamantly disagree and refer the examiner to their Figures 1, 2, and 3 and the discussion in the specification thereof, where the criticality of coating growth rate constant in dependence on volume % aluminum trichloride, reactor pressure, and total gas flow is shown.

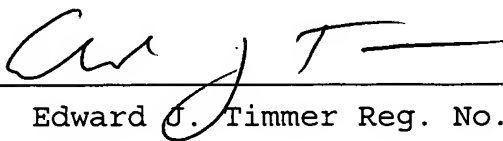
Basta makes no teaching whatsoever of such coating parameter(s) control to improve growth rate constant and thus to reduce coating deposition time in the manner described in Applicants' specification. As mentioned above, Basta teaches away from the pending claims in disclosing an aluminum trichloride concentration of 9 volume % of the coating gas mixture.

The same is true with respect to the recitation in claim 2 of providing a concentration of aluminum trichloride of about 0.6 to about 1.2% by volume of the coating gas mixture in the chamber together with a total pressure of the coating gas mixture in the chamber of about 100 to about 300 Torr.

The same is true with respect to the recitation of claim 3 of providing a concentration of aluminum trichloride is about 1.0% by volume of the coating gas mixture in the chamber, and the total pressure of the coating gas mixture in the chamber is about 200 Torr.

Applicant requests allowance of the pending claims.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Edward J. Timmer", is written over a horizontal line.

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enclosure: Postal card



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I hereby certify that this correspondence and enclosures are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents
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Edward J. Timmer